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Exploring the downside of open knowledge resources: The case of indigenous knowledge systems and practices in the Philippines

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Abstract:

The paper is based on the challenges encountered by the researcher while conducting a study titled “Design, Development and Testing of an Indigenous Knowledge Management System Using Mobile Device Video Capture and Web 2.0 Protocols.” During the conduct of the study the researcher observed a marked reluctance from organized indigenous people’s groups to participate in the initiative. It soon became apparent that interfacing indigenous knowledge with open access concepts held complicated issues. The inhibiting factors enumerated and discussed in the paper deal with: honoring indigenous belief systems; respecting the privacy of indigenous peoples; dealing with indigenous knowledge system (IKS) protocols; the significance of context in IKS; mainstream prejudice and value judgments among non-indigenous people users; and the misrepresentation of indigenous knowledge.

Keywords: Open access, open learning resources, indigenous knowledge system, mobile video capture; Web 2.0.

Introduction

From December 2008 to July 2009, an exploratory study, funded by the International Development Research Centre (IDRC) through PhilICT Research, was conducted on the potentials of mobile devices for participatory content development among rural communities (Flor, 2009). The study, titled *Factors Associated with the Use of Mobile Phones as a Web 2.0 Platform for Philippine Rural Families*, surveyed rural households in Mindoro province on their uses of mobile devices and their existing capacities. In the course of the study, a number of factors surfaced that were clustered according to the following: technological factors; content-related factors; user-related factors; incentives for content development; and cost-related factors. The study forwarded the following recommendations:

- Firstly, the use of mobile devices as a Web 2.0 platform among rural communities should be tested through an action research study with due consideration given to the factors enumerated above.
- Secondly, a protocol for online participation and content provision for rural communities using mobile Internet and rich media should be developed once again with due consideration given to the factors enumerated above.
- Thirdly, capability building programs should be designed to upgrade the skills and confidence of the rural user.
- Lastly, learning modules on Mobile Videography for Rural Users should be designed, developed and packaged.

A follow-up study was conducted from July 2010 to June 2011, which addressed the above recommendations. This study, titled *Design, Development and Testing of an Indigenous Knowledge Management System Using Mobile Device Video Capture and Web 2.0 Protocols*, attempted to

answer the following research questions: How can mobile devices be used by rural communities to document indigenous and local knowledge? How can Web 2.0 protocols be employed in an indigenous/local knowledge management system? How will indigenous peoples (IPs) respond to the use of mobile technology in the documentation of their local knowledge?

Thus, it focused on the following objectives: to test mobile telephony and data services as a Web 2.0 platform for the capture, sharing and reuse of indigenous and local knowledge among rural communities; to design a rich media based indigenous knowledge management (KM) system; to develop a protocol for online participation and content provision for indigenous communities using mobile Internet and rich media; and to identify and validate factors that are correlated to levels of participation in Web content provision across Philippine indigenous peoples.

Indigenous peoples are among the most educationally marginalized communities in Asia due primarily to access, equity and quality issues. Developing their capacities to download and share among themselves content from/on the World Wide Web may resolve these issues without much investment in physical infrastructure. The theoretical basis for proposing that mobile devices may lead to the active participation of indigenous peoples as ICT4D Web content providers is founded on the relationships of three concepts: social capital (Cox, 1995; Montgomery, 1998); the network effect (Reed, 2002; Flor, 2004); and critical mass theory (Oliver *et al.*, 1985). The primary technological intervention was the mobile device—GPRS enabled mobile phones, with audio-video capture and Internet browsing functionalities.

After a year, the study was able to: design a content management system (CMS) for rich media; develop and test, through a training course attended by IP representatives, a protocol for mobile video capture; and test online content provision. The results are currently being written up and will be the subject of a separate paper. In the course of its conduct, however, the study encountered major challenges—intervening variables—that have shaken its basic assumptions.

Open access and open learning resources

The study's philosophical bases rest upon assumptions held by the open access movement and the open learning philosophy; assumptions not necessarily held by mainstream societies but which are gaining ground with the global adoption of Internet technologies. As a faculty member of an open university, I have long been an advocate of open courseware and open educational resources, adopting the view that knowledge, and thus, content, should be free. For sure, such views run counter to intellectual property rights (IPR) advocates within the academe who spouse an economic cum transactional value to knowledge and content. However, within the current information and communication technology environment, the ideal of having all explicit or documented knowledge made available on the Web is now a possibility. Furthermore, the prospect of digitally capturing all tacit or undocumented knowledge and also making these available openly is likewise quite real. Thus, within an open learning environment, the academe may no longer be the repository of knowledge, a position that it has occupied for almost a millennium. This particular function has been coopted by the World Wide Web. It has been argued particularly by proponents of the Open Educational Resources (OER) University concept, that with educational resources openly available in the World Wide Web from institutions such as the Massachusetts Institute of Technology, the main functions of an open university will eventually shift from instruction and research to assessment and accreditation (Taylor, 2011).

Extending this view to indigenous knowledge systems and practices (IKSP), we may likewise argue that, in the spirit of openness, indigenous knowledge, having been the products of generations of practice and are thus steeped in wisdom, may likewise be made available in the Web, at the very

least to flatten generational learning curves. This is particularly true in traditional agricultural and folk medicinal knowledge and practices, which have recently become valuable sources of prescriptive technologies for organic agriculture and ethnomedicine, respectively.

During the conduct of the study, however, the researcher observed a marked reluctance from organized indigenous people's groups to participate in the open access initiative. It soon became apparent that interfacing indigenous knowledge with open access concepts held complicated issues.

Inhibiting factors

During the conduct of the action research, representatives from six indigenous tribes from six Philippine provinces were trained on mobile video capture using the Nokia 5230. Before heading home, the participants were requested to document: agricultural practices that would enable them to adapt to climate extremes of droughts and floods; food preparation practices; and healing practices. Additional training on video assembly was conducted *in situ*. Among the members of the project team, there was a tacit assumption that the assembled video clips would be uploaded to a dedicated YouTube site. The majority of the participants hesitated. Some outwardly refused. Upon probing the reasons for this hesitancy or refusal, the researcher documented the following factors, which in this research, surfaced as intervening variables:

The need to honor indigenous belief systems

Indigenous belief systems closely follow traditional knowledge transfer protocols and epistemologies. As members of the academe, we have all been subjected at one time or another to this tradition that traces its beginnings in the so-called "invisible college"¹. In earlier times, when knowledge was thought to be the purview of the privileged, the term was applied to secret societies and even to occult brotherhoods. Many of today's grand academic traditions started out in invisible colleges, well-knit and tightly structured brotherhoods of hooded learned men governed by a culture of hierarchy, exclusivity, ritual and secrecy. In Paris, Oxford and Rome, these brotherhoods existed for the purpose of enlightenment. A progressive system of initiation, passing and raising determined the degrees and the level of knowledge of a scholar. Under this system, disciplines began and areas of studies grew. Today, the academe has discarded the secret handshake but still adheres to secret codes through the technical jargon inherent in any discipline. The hood and the robe have been retained in academic costumes. The system of seniority, the degrees and the rituals that accompany them have been maintained. Latin and Greek have been replaced with English as the academe's *lingua franca* (Flor and Sompong, 2011). Paradoxically, we find among academia, specifically from open universities, the most active advocates of openness and open access.

Indigenous belief systems covering knowledge transfer, sharing and reuse is likewise guided by this exact same tradition of hierarchy, exclusivity, ritual and secrecy. Indigenous communities, as a rule, have invisible colleges composed of tribal elders, chieftains and healers who regard themselves as custodians of knowledge, which may only be shared with prudence, responsibility and, on occasion, sanctity. Like the invisible college of the past, tribal elders regard knowledge as power. Thus, the prevailing belief system dictates that indigenous knowledge on feeding (agriculture) and healing (medicine) cannot just be made openly available to any person who may misuse it or irresponsibly wield the power attendant to it. We contrast this to the mainstream practice of sponsoring massive agricultural extension campaigns to promote food production technologies as well as donor sponsored health campaigns to capacitate rural health workers.

The need to respect privacy

The complications encountered in this research are reminiscent of another experience that occurred in 1992, while developing and testing the ethnovideographic methodology. The researcher conducted fieldwork among the indigenous peoples of Central Mindanao and local upland communities of Southern Luzon (Flor, 2003). With a grant from the Lima-based International Potato Center, the researcher video documented the indigenous agricultural practices of the Talaandig-Higaonon tribe residing in Mt. Kitanglad in Bukidnon. One practice in particular is the planting of sweet potato, which is one of their staple crops. The members of the tribe plant the crop during fool moon, naked². For purposes of academic research, the video capture of such an event may be acceptable and may even be repackaged into a rich media knowledge product. However, uploading this knowledge product to You Tube would be ethically indefensible. The privacy of IP communities should be respected.

Significance of context

The nature of the video medium is such that the capture of phenomena may be considered as slices of reality within specific points in time. To be considered a bite-sized knowledge product, a video clip is often edited and assembled. In many occasions, the context for the phenomenon observed is edited out.

It must be noted that knowledge cannot be complete without a context. If an indigenous practice captured in a video clip is removed from its context then the knowledge gained can be considered incomplete, inaccurate and may lead to misunderstanding.

Prejudice and value judgments among non-IP users

In the early nineties, I supervised an Indonesian graduate student who employed ethnovideographic procedures in the documentation and analysis of indigenous agricultural practices of the Naga tribe in Tasik Malaya, West Java. The documentation included sequences of recycling wastes as fish feed, the use of palm leaves as roofing material, the non-adoption of high yielding varieties of rice, and rituals in the nearby forests. These practices are actually based on sound environmental wisdom handed over from one generation to another for hundreds of years (Flor, 2003). However, the initial viewing of the footage by colleagues only highlighted an impression of backwardness among the tribe members.

Mainstream cultures have often prejudged indigenous peoples as uncivilized, lazy, unlearned, superstitious, primitive and dirty. Thus, there is a tendency among non-IP Web users to judge indigenous knowledge and practices in this light ignoring for innate wisdom in these practices.

Misrepresentation of indigenous knowledge

Mainstream and popular culture have often misrepresented and abused indigenous knowledge and practices. Buasen (2010) provides the following examples: the public mimicry of traditional music with no benefit or due regard on the cultural meaning of the expressions and adaptations; the commercialization of textile designs being copied, mass produced as tourist merchandize; covert intentions on the conduct of research on folklore; and the abuse of cultural beliefs. Cases of representation have prompted IP groups to become suspicious of the intentions of researchers and documentors.

Indigenous knowledge system and practices (IKSP) protocols

French, Japanese and American bioprospecting expeditions in the Philippines have resulted in the patenting of *ilang-ilang*, *banaba*, *nata de coco* and snails at the expense of Filipino IP communities (Bengwayan as cited by Buasen, 2010). To address this form of exploitation, the National Council of Indigenous Peoples (NCIP) are putting together a comprehensive set of legal protocols at the community, provincial and national levels that determine the transfer, sharing and reuse of IKSP from IP communities. Under these protocols, clearances from the community up to the national agency (NCIP) are required for the capture, digitization, publication and distribution of IKSP. Thus, they cannot be openly transferred and shared. Proponents of the open access regimen tend to forget that such is also true in laboratories and research centers.

Summary and conclusion

Indigenous peoples are among the most educationally marginalized communities in Asia. It would follow that IPs would profit from open access and open learning philosophies. Access to open knowledge resources may capacitate IP communities and would ensure that indigenous knowledge are captured, shared and reused by future generations. However, the concept of open knowledge resources may not be appropriately applied to indigenous knowledge and practices due to a number of inhibiting factors. These factors were encountered during the researcher's study on the use of mobile videography and Web 2.0 protocols for the capture and sharing of indigenous knowledge. The discussion of these factors presented in this paper resulted from observation and a cursory review of literature.

As part of the continuing inquiry into open access issues, open knowledge resources and the significance of indigenous and local knowledge in the development effort, the researcher intends to conduct a more exhaustive analysis of these issues from the lens of critical theory.

At this juncture, it would only be appropriate to conclude that there are indeed valid exceptions to open access that require ventilation and articulation.

Notes

- ¹ Young (1998) describes the invisible college as a precursor to the Royal Society of the United Kingdom. It consisted of a group of scientists including Robert Boyle, John Wilkins, John Wallis, John Evelyn, Robert Hooke, Christopher Wren and William Petty. In letters written in 1646 and 1647, Boyle refers to "our invisible college" or "our philosophical college." The concept of an invisible college made up of a brotherhood of scholars exchanging ideas in restricted gatherings and correspondences spread throughout Europe and was exemplified by networks of astronomers, professors, mathematicians, and natural philosophers including Johannes Kepler, John Dee and Nicolas Copernicus. These societies adopted a common theme, to acquire knowledge through experimental investigation (Gingerich, 2004).
- ² The researcher later found that indigenous peoples from other parts of the world adhered to a seasonal calendar dictated by the phases of the moon when planting, harvesting and even fishing. Certain rituals associated with these practices likewise required the shedding of clothes. Thus, this practice may be embedded in the collective unconscious of indigenous peoples.

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